

Post Flood Requirements, Damage assessments, and Increased Cost of Compliance



Understanding Substantial Damage

“The 50% Rule”:

If damages from ANY source (flood, fire, tornado, alien attack, zombies, etc..) exceed 50%.

The structure must be brought into compliance with floodplain regulations (elevated or floodproofed).



Substantial Damage

The formula

$$\frac{\text{Cost of damage}}{\text{Market value of the building}} \geq 50\%$$

$$\frac{\$75,000 \text{ damage}}{\$140,000 \text{ house}} = 54\%$$

Substantial Damage

Determining Building Value

- Building value is the market value of the building prior to the damage or improvement.
 - Tax assessors records
 - Professional appraisal to appeal building value

Apply your approach consistently!



Substantial Damage

Cumulative Substantial damage tracking (example)

1999 - \$20,000 damage / \$100,000 = 20% damage

2001 - \$10,000 damage / \$120,000 = 8% damage

2008 - \$28,600 damage / \$130,000 = 22% damage

50% cumulative damage

Building must be brought up to flood code!

The Illinois state model ordinance tracks CUMULATIVE substantial damage

Post Flood Responsibilities

- **MOVE FAST! Don't wait for FEMA!**
- **Identify, tag, photograph, and document flooded structures**
- **Post information for the public on permit requirements. Use media sources.**
- **Provide technical information**
- **Contact State or FEMA for assistance and guidance if needed.**

State of Illinois Flood Damage Assessment Packet



A cooperative effort by:

Illinois Department of Natural Resources
Office of Water Resources

Illinois Emergency Management Agency

Federal Emergency Management Agency



2008 update

Includes Information On:

Steps to take following a flood
Substantial damage determinations
Blank damage assessment worksheets
FEMA Residential Substantial Damage Estimator (RSDE)
RSDE Field Worksheet
Information on state floodway permit requirements
Sample letter
Sample Notice
Information on mitigation programs

Field Inspections During FloodCrest



Tag Every Building From a Boat!!



* NOTICE *

Because this building is located in a floodplain and was damaged by flooding, a damage assessment must be conducted by the County.

Before doing any repair work or occupying this building you MUST call the Jersey County Floodplain Management Coordinator at (618) 498-5571 ext. #146 to schedule an appointment for inspection.

* NOTICE *

Because this building is located in a floodplain and was damaged by flooding, a damage assessment must be conducted by the County.

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Post Flood – Survey

- Document high water marks
- Digital photos
- Mark locations on map
- Post notices on properties
- Follow up letters



Think about where you place your notices



15 feet
above
ground!

Cull the Herd 100% damaged







The Pierce Home

Henderson
County, IL





The Pierce Home

Henderson
County, IL



Focus on the Tough Ones

40% – 60% Damaged



Sometimes they are tough!



Ottawa Central School

One inch of flooding.

Fall 2008



Learn to use the SDE

- Print out the user's manual
- Obtain the base cost #s from Marshall Swift or Mean (I can't say that)
- Do a couple of trial runs.
- Use the Mississippi "cheat sheet" to enter the percent damage for each component.
- Be fast, uniform, & equitable.
- Get the letters out ASAP.
- Can address challenged estimates later.



Substantial Damage Estimator (SDE) User's Manual and Workbook

Using the SDE Software Program to Perform
Substantial Damage Determinations

FEMA P-784 / Software Version 1.0 / July 2010



FEMA



Learn to use the SDE (cont.)

- On site inspection done for each flooded structure.
- Information recorded on damage inspection worksheets (field sheets).
- Entered into SDE back at the office.



Appendix B Forms and Checklists

SDE DAMAGE INSPECTION WORKSHEET

Single-Family, Row, or Townhouse Site Built Residences

Subdivision Information:

Subdivision: _____ Parcel # _____ Lot # _____

Elevation of lowest floor: _____ Datum: _____

Community Information:

NFIP Community Name: _____ NFIP Community ID: _____

Latitude: _____ Longitude: _____

Building Address:

Owner's First Name: _____ Last Name: _____

Building Address #: _____ Street: _____ Suffix: _____

City: _____ State: _____ Zip: _____

Phone #: _____ County: _____

Mailing Address:

ss#: _____ Street: _____ Suffix: _____

State: _____ Zip: _____

County: _____

Attributes:

_____ 2-story _____ More than 2 stories _____

Continuous Wall w/ Slab _____ Piles _____ Crawlspace _____

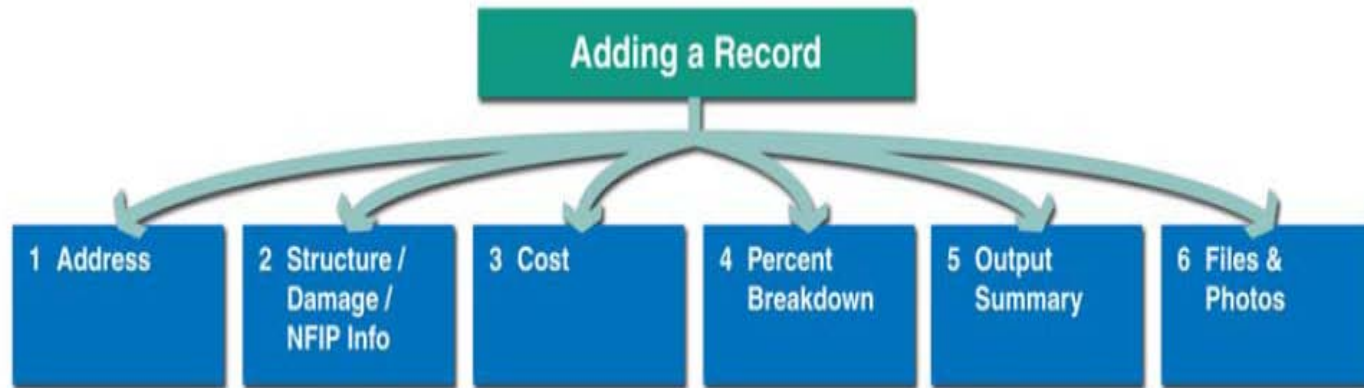
Basement _____





Stud-Framed _____ Masonry _____ ICF _____ Common Brick _____

Shingles _____ Clay Tile _____ Slate _____

Standing Seam (Metal Roof) _____

Learn to use the SDE



Icon	Significance
	The green icon appears next to invalid or empty fields that are suggested but not required in order to save a valid assessment
	The yellow icon appears next to invalid or empty fields that are required to complete a valid assessment (but are not required before saving)
	The red icon appears next to invalid or empty fields that are required before saving an open assessment
	Help icons can be found next to certain fields, and upon selection direct the user to the appropriate section of the User's Manual

Learn to use the SDE – Tab 1

1. Subdivision

2. Building Address

3. Community

4. Mailing Address

Address | Structure/Damage/NFIP Info | Cost | Element Percentages | Output Summary | Files & Photos

Address

Depending on your display resolution, you may need to scroll down to access all data fields on this tab.

1 **Subdivision**

Subdivision:

Parcel #:

Lot Number:

Elev. of Lowest Floor:

Datum:

3 **Community**

NFIP Community ID:

NFIP Community Name:

Latitude:

Longitude:

2 **Building Address**

First Name:

Last Name:

Street Number:

Street Name:

Street Suffix:

City:

State:

Zip:

County:

Phone:

Cell Phone:

4 **Mailing Address**

☐ Check if same as Building Address

First Name:

Last Name:

Street Number:

Street Name:

Street Suffix:

City:

State:

Zip:

County:

Phone:

Care of:

Custom Fields (Maximum of three)

Choose a field

Add Field

5

Learn to use the SDE - tab 2

1. Structure info
2. Structure info
3. Damage info
4. Inspector
5. NFIP info.
6. Community notes

Address | **Structure/Damage/NFIP Info** | Cost | Element Percentages | Output Summary | Files & Photos

Structure, Damage, and NFIP Info

Depending on your display resolution, you may need to scroll down to access all data fields on this tab.

Structure Attributes

Type:

Foundation:

Superstructure:

Roof Covering:

Exterior Finish:

HVAC System:

Story:

Structure Information

Year of Construction:

Quality:

Residence Information:

Damage Information

Date Damage Occurred:

Cause of Damage:

Duration of flood:

Est Flood Elevation: (In Feet)

Est Flood Depth: (feet above first floor)

NFIP Information

Inspected By:

Inspector's Phone:

Date of Inspection:

NFIP Community ID:

FIRM Panel #:

Suffix:

Date of FIRM Panel:

FIRM Zone:

BFE:

Regulatory Floodway:

Community Information

Space for Community Specific Information:

Learn to use the SDE – tab 3


1. Sq. footage
2. Cost Adjust
3. Additional costs
4. ACV

Address | Structure/Damage/NFIP Info | **Cost** | Element Percentages | Output Summary | Files & Photos

Cost

Depending on your display resolution, you may need to scroll down to access all data fields on this tab.

① **Square Footage**

 **Calculate Square Foot**

Total Square Footage: Cost per Sq Ft: Geographic Adjustment: Cost: **\$306,000.00**

② **Cost Adjustments**

Adjustments ?

	Quantity	Units	Unit Cost	Item Cost
Roofing	<input type="text" value="0"/>	Sq Ft	\$ 0.00	\$0.00
Heating / Cooling	<input type="text" value="0"/>	Ea	\$ 0.00	\$0.00
Appliances	<input type="text" value="1"/>	Ea	\$ 3,200.00	\$3,200.00
Fireplaces	<input type="text" value="1"/>	Ea	\$ 3,450.00	\$3,450.00
Porch / Breezeways	<input type="text" value="0"/>	Sq Ft	\$ 0.00	\$0.00
Garage	<input type="text" value="0"/>	Sq Ft	\$ 0.00	\$0.00

③ **Additional Adjustments**

Adjustments ?

	Quantity	Unit Cost	Item Cost
<input type="text"/>	<input type="text" value="0"/>	\$ 0.00	\$0.00
<input type="text"/>	<input type="text" value="0"/>	\$ 0.00	\$0.00
<input type="text"/>	<input type="text" value="0"/>	\$ 0.00	\$0.00
<input type="text"/>		\$ 0.00	0
<input type="text"/>		\$ 0.00	0

④ **Computed Actual Cash Value**

Total Adjustments : **\$6,783.00**

Total Replacement Cost : **\$312,783.00**

Replacement Cost per Square Foot : **\$78.20**

Cost Data Reference :

Cost Data Date :

Depreciation Determination : **Based on Year of Construction**

Depreciation Percentage : ?

Computed Actual Cash Value : **\$268,993.38** ?

Learn to use the SDE – tab 4

Address	Structure/Damage/NFIP Info	Cost	Element Percentages	Output Summary	Files & Photos
Element Percentages ?					
Depending on your display resolution, you may need to scroll down to access all data fields on this tab.					
Element Percentages					
<u>Item</u> ?	<u>% Damaged</u>	<u>Element %</u>	<u>Item Cost</u>	<u>Damage Values</u>	
Foundation	<input type="text" value="65"/>	11.9	\$37,221.18	\$24,193.77	
Superstructure	<input type="text" value="50"/>	13.3	\$41,600.14	\$20,800.07	
Roof Covering	<input type="text" value="10"/>	4.3	\$13,449.67	\$1,344.97	
Exterior Finish	<input type="text" value="50"/>	6.9	\$21,582.03	\$10,791.02	
Interior Finish	<input type="text" value="65"/>	13.0	\$40,661.79	\$26,430.16	
Doors and Windows	<input type="text" value="20"/>	15.6	\$48,794.15	\$9,758.83	
Cabinets and Countertops	<input type="text" value="50"/>	4.4	\$13,762.45	\$6,881.22	
Floor Finish	<input type="text" value="100"/>	7.7	\$24,084.29	\$24,084.29	
Plumbing	<input type="text" value="75"/>	8.4	\$26,273.77	\$19,705.33	
Electrical	<input type="text" value="75"/>	4.8	\$15,013.58	\$11,260.18	
Appliances	<input type="text" value="100"/>	4.1	\$12,824.10	\$12,824.10	
HVAC	<input type="text" value="40"/>	5.6	\$17,515.85	\$7,006.34	
Total Replacement Cost :			\$312,783.00		
			Total Estimated Damages :	\$175,080.28	

SDE Inspection Elements

- Foundation
- Superstructure (Framing and Masonry)
- Roof
- Insulation and weather stripping
- Exterior Finish
- Interior Finish (Drywall)
- Doors-Windows-Shutters
- Lumber Finished
- Hardware
- Cabinets-Countertops
- Floor Covering
- Plumbing
- Electrical
- Built-in Appliances
- Heating-Cooling (HVAC)
- Painting

The “Cheat Sheet”

Foundation – *These numbers can be revised downward if the inspector is reasonably assured no damages have occurred.*

Basement or crawlspace masonry foundations-

10% if minor hairline cracks and fractures or cosmetic (clean up, re-seal, paint, etc..)

50% if cracked, bowed, or fractured on one or more walls

100% if structural damage such as blow out or caved in walls

Slab on Grade Foundations –

10% damage unless the foundation is undermined.

30% if foundation is undermined

75% if foundation is broken or bowed

Joist and Pier Foundations

15% damage – for water depths exceeding height of floor

100% damage where building has moved from foundation

This criteria is based on foundations that are substantially intact and do not include damages caused by subsidence or shifting of the foundation. In some cases hydrodynamic forces has caused an upheaval in slab on grade foundations. In this circumstance, individual assessment will be required.

The “Cheat Sheet”

Exterior Finish

30% if waters less than 4 feet

60% if waters greater than 4 feet but less than ceiling height

100% if water above ceiling height

These number are based on hydro dynamic forces acting on the exterior walls of the structure. Some brick or brick veneer structures may have actual damages less than those shown.

Interior Finish - *based on interior finishes susceptible to flood damage*

30% if waters less than 4 feet

60% if waters greater than 4 feet but less than ceiling height

100% if water above ceiling height







IF TESTED
DO NOT ENTER







Learn to use the SDE – tab 5

Damage output.
Use tax
assessment.

Address Structure/Damage/NFIP Info Cost Element Percentages **Output Summary** Files & Photos

Output Summary

Depending on your display resolution, you may need to scroll down to access all data fields on this tab.

1 **Percent Damaged**

To ensure consistency and equity, local officials responsible for substantial damage determinations are strongly encouraged to select only one method each for determining building values and repair costs and to use the selected methods for the entire community. Computed damages based on element percentages within the software can only be derived from a replacement value. You can't use an appraisal or adjusted tax value which are both market values.

Select one from each category

Value of Building

☒ Computed Actual Cash Value
☐ Professional Market Appraisal
☐ Adj. Tax Assessed Value

Cost of Repairs / Improvements

☒ Computed Damages
☐ Contractor's Estimate
☐ Community's Estimate

Percent Damaged : 65.1 %

Substantially Damaged

2 **Damage Summary**

Replacement Cost : \$312,783.00 Computed Actual Cash Value : \$268,993.38
Computed Damages : \$175,080.28 Percent of Existing Improvements and Repairs Pre-Disaster : 0
Depreciation % : 14% Repair / Reconstruction % : 65.1 %

* Per FEMA Publication 213, actual cash value may be used as market value

3 **Optional User Entered Data**

Market Value Determination

Professional Market Appraisal
Professional Market Appraisal :
Adj. Tax Assessed Value
Tax Assessed Value :
Factor Adjustment : ?
Adjusted Tax Assessed Value :

Cost of Damage Determination

Contractor's Estimate of Damage
Contractor's Estimate :
Community's Estimate of Damage
Community's Estimate :

Be sure to SAVE assessment record before generating a report

Print Summary Report for this structure Print Detailed Report for this structure

Learn to use the SDE – tab 6

Photos and documentation

Address

Structure/Damage/NFIP Info

Cost

Element Percentages


Output Summary

Files & Photos

Photo and Document Upload

Depending on your display resolution, you may need to scroll down to access all data fields on this tab.
Please do not attach more than a combined 3 MBs of forms and/or photos to each assessment


Select Photo/File




Enter Description :

Save

click on a photo for more details


New Image1.JPG

☐ Set as Default


DSC01950.JPG

☐ Default Image

SDE Version 1.0

- **The SDE package includes the SDE software on CD, the Field Workbook, a User's Manual, and Desk Reference to assist local officials with their substantial damage determinations.**

New Features

- Evaluate non-residential structures
- Square footage determination tool
- Search function to sort records
- Import feature for community property data which can be used to create property records prior to doing assessments (pre-event)
- File upload function to attach photos and documents
- Assignments feature for use by supervisors or coordinators with inspectors
- Mapping Tool for use with Shareware to display files in several freely available mapping applications



EXAMPLE



**The Rulo
Home
Grafton , IL**



Property Record Card Front

42-08-206-012-00

10 S. Vine St.

PROPERTY RECORD RESIDENTIAL — RURAL

Ownership & Mailing Address	Town	Volume	Tax Code	Area	Sec.	Block	Parcel	Unit
	QAURRY							
	Property Class	Land Use	Zoning	N.H. Code		_____ of _____ Card No.		Condo. Comm.
	Record of Ownership				Date	Deed Stamps	Indicated Price	
Property Address								
	Joseph L. Rulo							
Original Town	10/69							
	A-7-842							
	5,000.							
Lot 12 Block 6								
Land Computations								
Unit	Units	Depth	Unit Val.	D. Fac.	I. Fac.	Full Value		
50	90							
Section 20g-3 R.B.								
Date								
Number								
Year								
Unit								
Summary of Assessed Value								
Item	Org. Asmt.	Full Value	Asmt. Level	Assessed Value	Rev. By	Full Value	Asmt. Level	Assessed Value
Land					19			
Bldgs.					19			
Total					19			
Item	Rev. By	Full Value	Asmt. Level	Assessed Value	Rev. By	Full Value	Asmt. Level	Assessed Value
Land	19				19			
Bldgs.	19				19			
Total	19				19			
Item	Rev. By	Full Value	Asmt. Level	Assessed Value	Rev. By	Full Value	Asmt. Level	Assessed Value
Land	19				19			
Bldgs.	19				19			
Total	19				19			

EQ 19 99

745

115


860

19 99

2166

16833

18999



PRC-1 (R-1-87) (replaces PRC-2)

IL 492 1155

Property Record Card Back

1999 - some new windows

BUILDING RECORD RESIDENTIAL — RURAL (Property — Type 1)

Occupancy							Interior Finish				Remodeled		Sold Date		Age		Adj. Age	
1 Vac Lot	2 Dwelling	3 Other	4 Mobile Home	5 A Frame	6 Summer Home	7 Apt.	B 1 2 3 Plstr/dry wall				NH		Amount \$		1900			
Living Accommodations Total rooms: Bed rooms: Family room:							Fiberboard Paneling				Memo		Grade		Dwelling Computations 1 1/2 Sty 1/2 Sty Constr. Sq. Ft.			
Foundation "Mas. Wall" Pier							Features Sq. ft. Quality Type Pt. Msy Trim Living				Condo. Comm. Porch SF QFP ¹ EFP ² OMP ³ EMP ⁴ 2-Sty ⁵		Basement -5824					
Basement 1 Full 3 Crawl 4 Slab							Fireplaces # Recreation Stacks #				Porches Prorated % Porch SF QFP ¹ EFP ² OMP ³ EMP ⁴ 2-Sty ⁵		Heating/Central air					
Attached garage Sq. Ft.							Integral garage On grade ¹ Below ² Attached garage Frm. ¹ Msy. ² Car pt. ³				Wd. deck SF Wood deck ⁵		Plumbing + -					
Heating 1 None 2 Central 3 Air condition 4 Other													Attic					
Warm Air Hot water/Steam Floor furnace Unit heaters Other													Porches					
Plumbing Standard (5) Bathroom (3) Toilet room (2) Sink/Lavatory water closet													Attch. garage + -					
Attic 1 None 2 Unfinished 3 Part 4 Full													Total					
Walls Frame/stucco/aluminum siding Concrete block Brick/stone Other													Grade					
Roof Shingle -asphalt/asbestos/wood Slate/tile Composition Other metal													Total					
Floors B 1 2 3													Other features					
Concrete Wood Tile Carpet													Pt. msnry. walls Fireplace Finished basement					
Listed by Date: 4/99													Total					
													C x D NH x AP					
													Replacement cost new Eff. age REL					
													Depr. S C M I					
													Full value					

Type	No.	Construction	Size	Rate	Grade	Age	CDU	Replacement cost new	REL	Full value
Garage (detached)	20x28	Frm. ¹ Msy. ² Carport ³	560			1980				

Total full value other buildings
Total full value all buildings

What is Increase Cost of Compliance (ICC)??

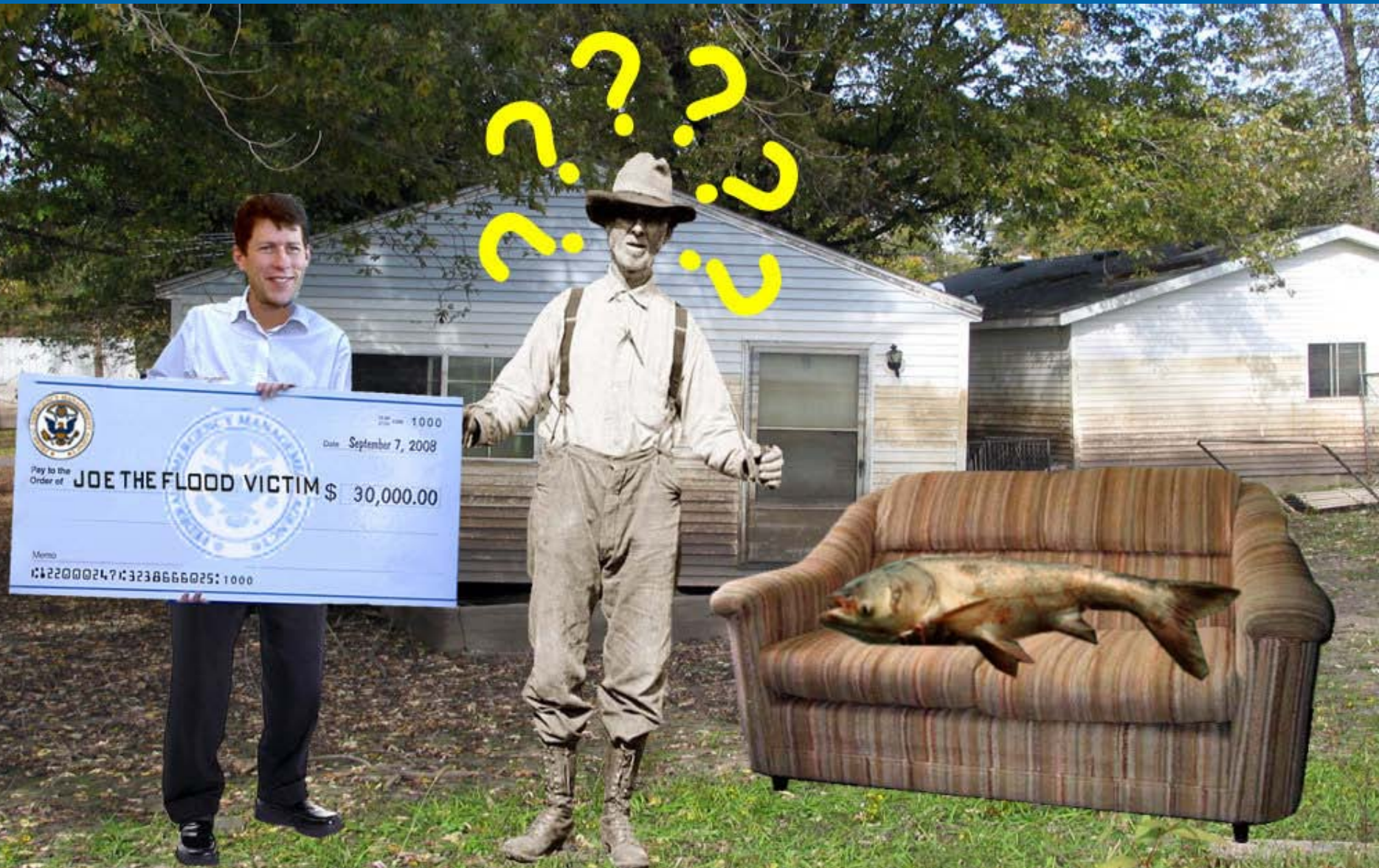
- Part of the standard Flood Insurance Policy.
- Not a grant.
- Up to \$30,000 to assist with code compliance:
 - **F**loodproof
 - **R**elocate
 - **E**levate
 - **D**emolish

Shutting the Window of Opportunity

- Intent letters sent to community 1 month
- Pre – application deadline 2 months
- Pre apps received and reviewed 1 month
- Full app request to community 1 month
- Full app review by board 1 month
- EDC and engineering review 2 months
- Repair plan, network and send to FEMA 3 months
- FEMA review and approval 3 to 8 months
- Grant agreement with FEMA 1 or 2 months
- Full app review by board 1 or 2 months
- EDC and engineering review 2 months
- Review of appraisals 1 or 2 months
- Local title company 1 month
- EDC and engineering review 1 month
- EDC and engineering review 1 month
- Demolition 3 to 8 months
- Close out 1 year or more
- Mitigation Plan? add another year!

**3 years if
Everything
Goes Smoothly!!**

ICC opens the Window of Opportunity



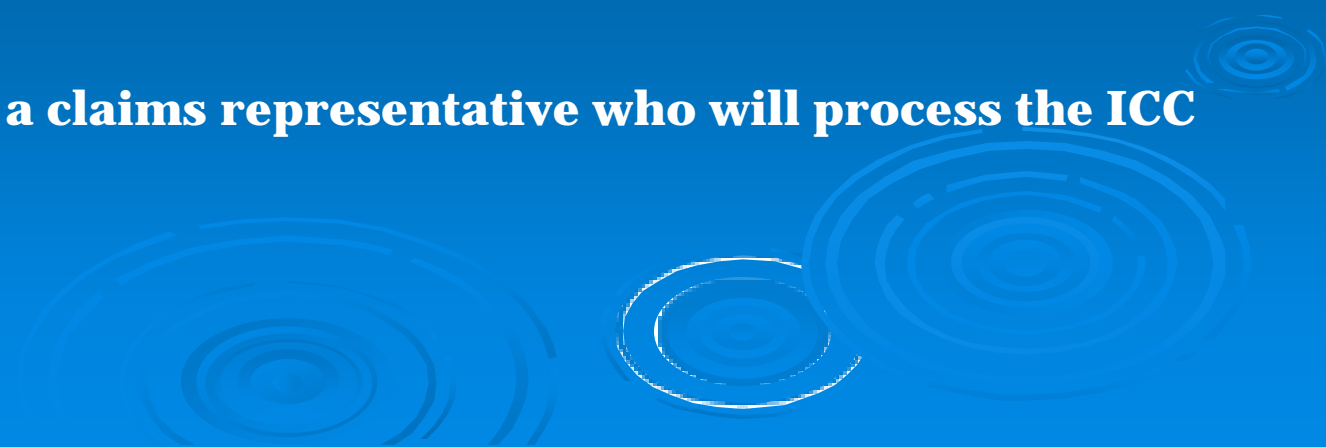
How to Qualify for ICC??

Three conditions must be met for an ICC claim to be paid:

- Building must be covered by a Standard Flood Insurance Policy.
- Structure must be substantially damaged or cumulatively substantially damaged by a flood.
- The building has a history of NFIP claim payments that satisfy the definition of “target group repetitive loss structure”.



How to File a Claim

- **Copy of the substantial damage determination from the community (not the insurance claim).**
 - **Bids from licensed contractors to elevate to FPE.**
 - **Copy of the ordinance section requiring cumulative substantial damage.**
 - **Contact the insurance company or agent who wrote the flood policy to file an ICC claim.**
 - **Insurer assigns a claims representative who will process the ICC claim.**
- 

Damage Assessment Letter

SAMPLE DAMAGE DETERMINATION LETTER

06/12/2008

John & Jane Q. Public
1234 Flooded-By-The-River Rd.

Information relates to the address referenced above.

Community Number:	170XXX
Parcel Zone Information:	Zone A
Fair Market Value:	\$31,226 (based on 3.1 x assessed value)
Flood Damage:	
June 2008	<u>\$18,864</u>
Total damages	\$18,864
Percent Damaged:	60.4%
Ordinance Requirement:	Mitigation (elevation, removal)

The determination is that this structure is declared **Substantially Damaged** and must be brought into compliance with the ____ (insert community name) ____ Floodplain Ordinance prior to repair and reoccupation. For this structure to be in compliance with the ordinance, the structure must be elevated, moved outside the floodplain or demolished.

If you have any additional questions, you may feel free to give me a call at xxx-xxx-xxxx.

Sincerely,

Your Name and title

What if....

➤ The adjusters say:

- I don't' think there is that much damage
- When you deduct the cost of elevation, it is back under 50%
- You don't have the authority to require this structure to be elevated.
- The replacement cost of this house is MUCH higher

•What they REALLY meant to say is:

•I have never taken the time to read the NFIP Manual, the ICC Guidebook, or your local ordinance so I don't have the foggiest idea that you, the local official, has TOTAL authority determining substantial damage and I apologize for my ignorance and I hope you will not embarrass me in front of my other insurance adjuster pals. *

•**Ray Nees, Rock Island County*

When ICC is Approved

- NFIP will only will only release the funds when an elevation certificate and local building permit showing compliance is provided .









ONE MONTH
AFTER THE
FLOOD!!!!!!!



New Request From Adjusters:

- Elevation cert prior to the date of loss
- Flood zone
- Dollar figure of loss related to flood
- Cost to rebuild (without elevation)



If your community has any Rep Loss properties...

- There is **NO, NO, NO, NO, NO, NO, NO, NO, NO** reason that you should not have adopted a cumulative substantial damage provision in your local ordinance!!!

NO REASON!

More tips:

Home Moving and Elevation Contractors

1. Peters House
& Building Movers
R.R. #1 Box 114
Farmer City, IL 61842
(309) 929-2532

2. MCE Home Movers
1637 East 800 North Rd.
Loda, IL 60948
mcehome@aol.com
217-379-2888 - office
217-519-0244 - cell

3. Lyle Hyatt and Company
House Movers
612 Green Street
Sandwich, IL
815-738-6591

4. Belagay House Moving, Inc.
21609 B. Illinois Highway 118
Farmington, IL 61531
(309) 245-4488

5. Greene County Steel
Elkhart, IL 62027
(618) 576-6730

6. Loustek Construction Inc.
4038 Vista Drive
St. Louis, MO 63301
(636) 250-6189
*elevation only

7. Expert House Movers
2144 Reshing Avenue
St. Louis, MO 63130
(314) 727-6722
Or
(800) 305-6939



This list includes contractors who have done ICC elevation projects in the past. It is not a complete list and does not imply an endorsement by the State of Illinois. Consult your phonebook for local contractors.

- Get the Quick Claims data. Call people with policies who you suspect to have been sub dam. (most agents don't inform their clients)

- Develop a list of Elevation Contractors (ones who have done prior ICC projects) and provide the list to residents.

- Quick response. Call ASAP to get a bid and schedule a contractor.

- Not all policies are NFIP. Forced placed may not have ICC provision (or a reduced coverage limit). Example: \$57,419 coverage - \$50,200 claim = \$7,219 left to elevate.

ICC Before and After





Brian A. Eber, CFM

NE Illinois Floodplain Program Coordinator

Illinois Office of Water Resources

2050 W. Stearns Rd, Bartlett, IL

(847) 608-3100 ext 32059

brian.eber@illinois.gov